

GEOGRAPHIC NEWS BULLETINS

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(The National Geographic Society is a scientific and educational Society, wholly altruistic, incorporated under the Federal law as a non-commercial institution for the increase of geographic knowledge and its popular diffusion.)

General Headquarters, Washington, D. C.

Contents for Week of March 6, 1933. Vol. XII. No. 3.

1. Mountains "Walk" Again in Kansu, China's Wild West.
 2. Salmon, King of America's Food Fishes.
 3. The Straits, Turkey's Gateway to Asia.
 4. Longest Flight Lifts Walvis Bay into Headlines.
 5. The Kazak Republic, Changing Land in Former Turkestan.
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ON HIS SHEEPSKIN RAFT HE GRINS AT EARTHQUAKES

In Kansu Province, where the mountains "walked" again with a reported toll of more than 70,000 lives, Chinese boatmen float wool, dried fruit, and general freight down the muddy Hwang Ho on such crude boats as these, made by inflating sheepskins or oxbides and fastening them together with thongs and sticks (See Bulletin No. 1).

HOW TEACHERS MAY OBTAIN THE BULLETINS

The Geographic News Bulletins are published weekly throughout the school year (thirty issues) and will be mailed to teachers for one year upon receipt of 25 cents (in stamps or money order). Entered as second-class matter, January 27, 1922, at the Post Office at Washington, D. C., under the Act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized February 3, 1922.

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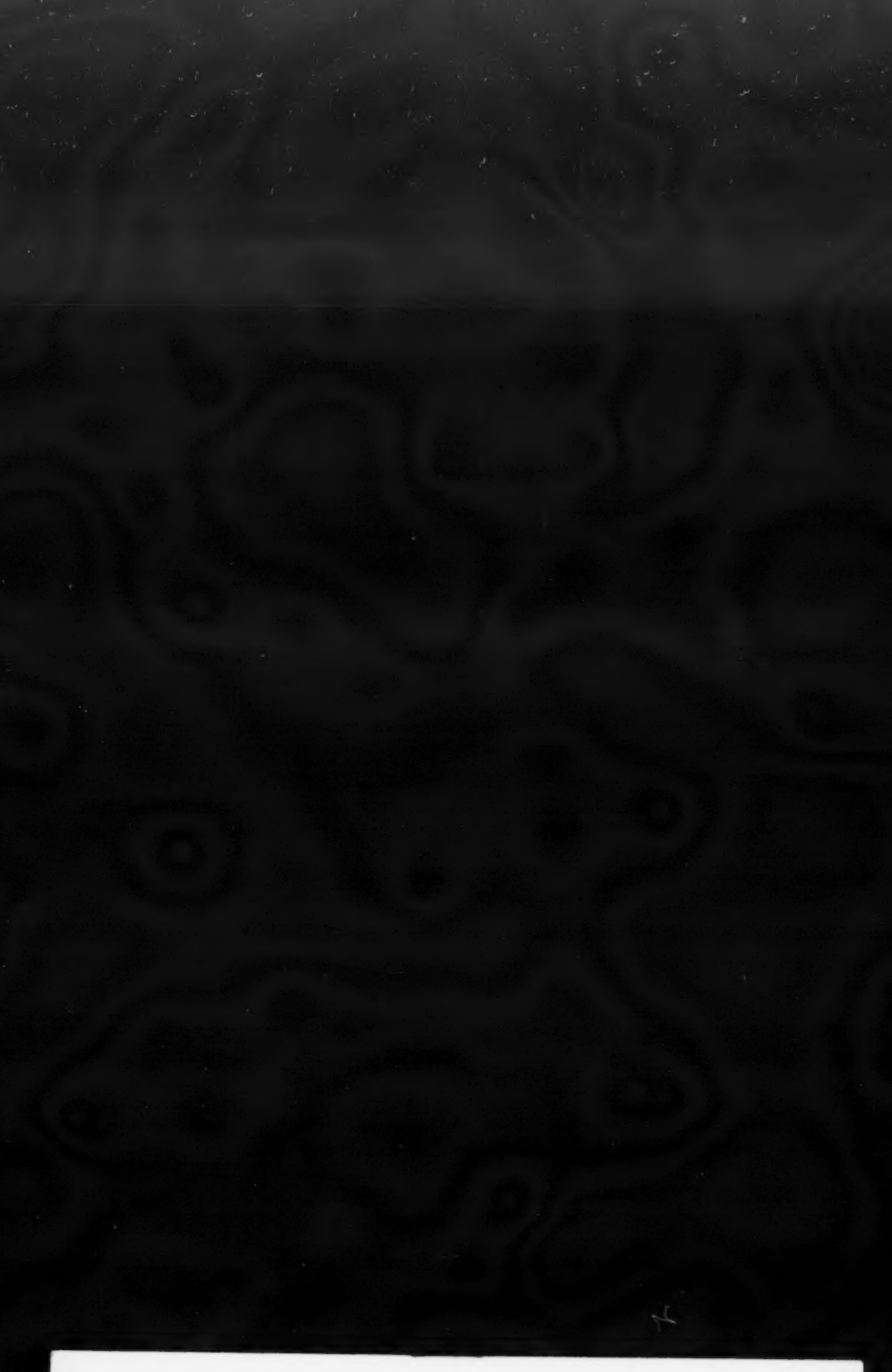
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Mountains "Walk" Again in Kansu, China's Wild West

BACK in the hinterland of China, a thousand miles west of Peiping, earthquakes continue to take toll of thousands of human lives, and the outside world hears of it, if at all, months after the disaster. Reports reached Peiping on February 12 that more than 70,000 persons were killed in the Kaotai district of northwestern Kansu Province by a violent earthquake which occurred the day after Christmas, 1932.

With this and the great earthquake of 1920, when the Chinese said "the mountains walked," and a severe earthquake in 1927 resulting in 100,000 deaths, Kansu becomes the region of the world's most devastating quakes.

Shaped Like a Giant Stewpan

Kansu Province, while about in the exact center of the great expanse of territory marked "China" on the map, is really the northwest province, "the frontier," of China proper. The deserts of Inner Mongolia form its northern boundary, and Sinkiang and Tibet close it in along its western and most of its southern edges.

Although Kansu Province is one of the largest political divisions of China—with an area slightly exceeding that of New Mexico—it has the smallest population of any of the eighteen provinces of China proper. With 5,000,000 inhabitants it averages only 40 persons per square mile, a low figure in a country where regions as large as Illinois have more than 500 inhabitants per square mile.

Lofty mountains and deserts, frequent earthquakes and floods, constant religious strife and geographical isolation—these few reasons explain why Kansu is the most sparsely populated, and one of the least-known parts of China. In shape the province resembles a giant stewpan, with a chubby handle running off more than 400 miles to the west, following the last crumbling segments of the Great Wall of China, and the lonely caravan routes to Sinkiang (Chinese Turkestan).

Kansu Province is a land of Chinese Mohammedans, and their dominance is especially marked in the western part, north of the Nan Shan Range. Several generations ago they rose in rebellion against the non-Moslem Chinese and massacred tens of thousands of them. A more recent rebellion occurred in 1895.

Moslems Honored by Stripe in Flag

In appearance Moslem Chinese look little or no different from other Chinese. Their habit of taking Chinese wives has diluted pioneer blood until the distinguishing hazel eyes and reddish hair of the desert ancestors are rarely seen. The Moslems adopted the Chinese language, although they cling to the Arabic Koran for religious and moral guidance. They have adapted their mosques to Chinese styles of architecture.

Their normal loyalty to the Chinese Government prompted the republican leaders to honor them with the fifth stripe in the new flag. Yet they have clung to their Islamic faith which makes them look upon Buddhists as "unclean."

In the three-year famine of 1928-31 almost half of the population of Kansu, and also of the neighboring province of Shensi, to the east, perished. American potatoes, cultivated by missionaries, have saved the lives of millions in this area, but many of the inhabitants have given up village life. The countryside is dotted with fortified farms, where each family and its dependents can defy robber bands.



© Photograph by E. C. Kolb

THE SALMON IS ONE OF NATURE'S MOST SPECTACULAR ACROBATS

This scene, taken near Lake Brooks, Alaska, may be duplicated in the Potomac River if the salmon about to be planted in the latter stream return four years from now to spawn. Leaping salmon are hard to photograph. The water reflects a great deal of light and the big fish very little. One may take a good picture of either the water or the fish, but to get both on the same negative is difficult (See Bulletin No. 2).

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Salmon, King of America's Food Fishes

VIRGINIA, Maryland and the District of Columbia are interested in an experiment about to be made by the United States Bureau of Fisheries and the Maryland Conservation Commission. Some 2,000 Chinook Salmon from the Pacific Coast, which were hatched in the aquarium of Washington's new Department of Commerce building, will be placed in Deep Creek Lake, Maryland, whose waters drain into the upper Potomac River, with the hope that they will find their way to salt water, and return, in four years, to spawn.

The Great Falls of the Potomac above Washington should offer no barrier to the returning fish, and will give residents of the East a chance to see one of the most spectacular acrobatic feats in nature if the salmon attempt to hurdle it as they do waterfalls in Pacific coast streams (see page 2).

Five Distinct Pacific Species

The Pacific salmon are the most valuable fishes not only of the United States but also of the entire western hemisphere, and, with the single exception of the sea herrings, are commercially the leading fishes of the world.

The Pacific salmon constitute a distinct group, closely resembling the Atlantic salmon, but separated by marked peculiarities. There are five distinct species of Pacific salmon, which differ strikingly in size, color, habits, distribution, food value, and economic importance. All of the species occur on the California coast, ranging from San Francisco Bay (or a little farther south) to Alaska, crossing to Siberia and reaching southward into Kamchatka; while three of them extend to Japan.

The largest of the genus, and the most magnificent of all salmon, is the Chinook, also known as the Quinnet, King, Spring, or Tyee salmon. It has an average weight of nearly 25 pounds in the Columbia, and individuals weighing 40 to 60 pounds frequently are caught. Occasionally fish of more than 100 pounds are taken. While found from California to China, the Chinook attains its greatest abundance in the Sacramento, Columbia, Yukon, and other large North American streams.

Sockeye in Demand for Canning

The species called Blueback salmon on the Columbia, Sockeye on Puget Sound, and Redfish or Red salmon in Alaska, averages only five pounds in weight and never exceeds twelve. It attains greatest abundance in the Columbia, the Fraser, and in various streams throughout Alaska. Its meat is rich in quality and deep red in color, and the fish is therefore in great demand for canning.

The Silver or Coho salmon, generally found in coastal streams, averages six pounds in weight and rarely exceeds 25 or 30. The smallest species is the Humpback, so called from the well-marked hump developed by the male in fall. Its average weight is four pounds. The region of greatest abundance is Puget Sound to southeast Alaska. It has been transplanted to streams in Maine and seems to be firmly established.

The remaining species, the Dog or Chum salmon, averages eight pounds in weight. It is generally distributed and abundant, but, owing to the poor quality of its flesh, is the least important of the group.

After spending most of their lives at sea, accumulating fat, and storing energy, salmon move inshore and ascend the streams. After once beginning their upward journey, they take no food.

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The region around Lanchow, the mud-walled capital of Kansu, is irrigated and is highly productive.

Although 600 miles from the nearest railroad, Lanchow enjoys an active trade in hides, furs, grain and other commodities when conditions are normal—that is, when robber bands have been placated, and when earthquakes and floods spare the few rocky trails that pass for roads.

Several expeditions of the National Geographic Society have explored hidden corners of Kansu Province, bringing back the first reports of these regions ever made by white men. Dr. Joseph F. Rock, noted explorer, visited the monastery of Choni, photographing for the first time the demon dancers and butter gods of this almost unknown Tibetan principality in Kansu. Later he found "The Mountains of Mystery," the Amnyi Machen Range, west of Kansu. Frederick R. Wulsin, leading a National Geographic Society expedition, discovered strange ancient tribes and pagoda mosques in unmapped Kansu districts. In December, 1931, the Citroën-Haardt Trans-Asiatic Expedition, in which the National Geographic Society cooperated, traversed Kansu Province during the first motor car crossing of Asia.

Note: For a vivid account of a previous earthquake in this region see: "Where the Mountains Walked," *National Geographic Magazine*, May, 1922. The Citroën-Haardt Trans-Asiatic Expedition took photographs in the earthquake area a little over a year ago. See: "From the Mediterranean to the Yellow Sea by Motor," November, 1932.

For additional references to Kansu consult the following articles, which may be obtained in the bound volumes of the *National Geographic Magazine* in your school or public library: "Raft Life on the Hwang Ho," June, 1932; "The Desert Road to Turkestan," June, 1929; "Life among the Lamas of Choni," November, 1928; "Farmers Since the Days of Noah," April, 1927; "The Road to Wang Ye Fu," February, 1926; "Experiences of a Lone Geographer," September, 1925; "The Cause of Earthquakes," October, 1923; and "The Great Wall of China," February, 1923.

Bulletin No. 1, March 6, 1933.



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A CRULLER STAND IS THE "BAR-B-Q" OF KANCHOW

Rice is a luxury to Chinese in most parts of Kansu, China's earthquake province. A bread made of coarse flour, fried in vegetable oils, attracts as many customers as our own roadside refreshment stands. Kanchow is but a short distance southeast of the center of the latest disastrous quake in this remote section of China, and northeast of other areas where there was great loss of life during earlier calamities.

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The Straits, Turkey's Gateway to Asia

FROM Paris to Egypt without changing cars! Or the long-cherished German dream of Berlin-to-Baghdad express trains!

Both journeys, already included on regularly-scheduled tickets with several changes from standard railway to narrow-gauge, or from railway to ferry and automobile, are brought nearer to realization since the granting by the Turkish government of a train-ferry concession across the Bosphorus, from Istanbul (Constantinople) to Haidar Pasha station, on the Asian shore.

Used by Jason and His Argonauts

"The Straits" (the Bosphorus, the Sea of Marmara and the Dardanelles), which in modern times have been considered a water highway between the Black Sea and the Mediterranean, and a barrier to land traffic, must henceforth be regarded in a new light. With car ferries using the short water jump, where the Sea of Marmara narrows to the Bosphorus, the Straits will again become a crossroad of trade and a gateway to Asia.

The sparkling waters of the Straits have been a pulsing artery for commerce since the time when history and mythology met. Jason and his Argonauts went through and sailed along the southern coast of the Black Sea in Greece's kindergarten days; and there are those who see in the Golden Fleece they sought a poetic allusion to the rich trade the Greeks found then and for many centuries later in the waters of the Euxine, as the Black Sea was then called. Scythia, north of the Black Sea, sent grain through the Straits to the Greek city states, and later to Rome.

As agriculture and industry have waxed and waned, as caravan routes have been shifted or have given way to railroads, and as political boundaries have been pushed back and forth in the countries around the Black Sea, the changes have been registered in the stream of traffic flowing through the Straits.

Heavy Traffic before World War

Before the World War shiploads of grain moved out through the Straits from the mouth of the Danube, from Odessa, and from the Russian ports of the Sea of Azov. Tanker after tanker carried petroleum cargoes from Batum at the east end of the Black Sea, whither it had flowed from Baku, through what was then one of the longest of the world's pipe lines. Shiploads of tobacco steamed from Samsun, Turkish port on the south shore of the Black Sea; and from near-by Trebizond came thousands of Persian rugs. Mines on the Asia Minor coast and Russia's Donetz fields contributed cargoes of coal.

Manufactured goods, cotton, and sugar went north from the Mediterranean, and through the Bosphorus steamed many a Mediterranean cruise ship or luxurious yacht to anchor off the Crimea, where the Tsar of Russia and his court formerly spent the winter months and where Soviet laborers now take a vacation or a sun cure.

During the World War this stream of traffic was bottled up by Turkish armies and Allied ships, and for a number of years it was only a trickle. When it improved, there were many changes in its character. The breaking up of large estates in Rumania brought that country's wheat surplus down to a negligible figure, and it seems unlikely that small farmers will produce wheat for export. The Russian revolution put a stop to both grain and petroleum exports from Russia for almost a decade.

Shifting of Eastern Trade Routes

Trebizond lost practically all its carpet and rug trade as a result of the World War. Thousands of laden camels used to come in annually from the southeast. Now the trade has largely been routed from Persia to Baghdad, with gasoline trucks replacing the lumbering camels. Local produce such as hazelnuts, walnuts, eggs and tobacco now form the bulk of the shipments from Trebizond for passage through the Straits.

Samsun quickly recovered as the Black Sea's chief tobacco port. Railways are being extended into the interior, and shipments of various kinds are increasing. Turkish coal mines have become more active, and contribute to the Black Sea's heightened trade. There are rich mineral deposits in this mountainous southern coast of the Black Sea, including iron and copper, but they are now little developed. Some known mines furnished these metals to the ancients for thousands of years, and there is a legend that the hammer and the anvil were invented in this region.

Rumania, although of little recent importance in the grain trade, has added to current traffic growth by increased shipments of petroleum and timber products. Russia's steadily increased production of petroleum near Baku has also added to Black Sea shipping.

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The Chinook salmon begins to run in spring and pushes its way to the headwaters of the larger streams. In the Columbia basin the species distributes itself over 90,000 square miles of Washington, Oregon, Idaho, and Montana. In the Snake River and the Yukon River the spawning grounds lie 2,000 miles by water from the sea.

Whether salmon travel in the streams 2,000 miles or 200 feet to reach spawning grounds, and regardless of physical condition at the time they arrive at the particular places required for the proper development of eggs and young, all die shortly after spawning.

Note: For a more detailed description of the salmon, its habits and its value as a food fish, see "The Book of Fishes," by Dr. John Oliver La Gorce, and other authorities, published by the National Geographic Society. This handsomely illustrated book and the other publications of the National Geographic Society have recently been reduced in price as a further contribution to teaching and the dissemination of geographic information. A revised list of The Society's book, map and picture publications will be sent free to teachers upon application to the School Service Department, National Geographic Society, Washington, D. C.

For supplementary reading about the native haunts of the salmon see "Washington, the Evergreen State," *National Geographic Magazine*, February, 1933; "A World inside a Mountain," September, 1931; "On Mackenzie's Trail to the Polar Sea," August, 1931; "To-day on 'The Yukon Trail of 1898,'" July, 1930; "Mapping the Home of the Great Brown Bear," January, 1929; "Canada from the Air," October, 1926; "Fishes and Fisheries of Our North Atlantic Seaboard," December, 1923; and "Our Greatest National Monument," September, 1921. See also: "The Great Falls of the Potomac," March, 1928.

Bulletin No. 2, March 6, 1933.



© Photograph by Curtis & Miller

PACKING RED SALMON MEAT INTO CANS BY MACHINERY

In this busy Alaskan cannery the fresh fish are first fed into the "iron chink," which automatically removes the head, fins and other waste matter. After that it goes to the cutting machine, and finally to the packer shown above. In 1930 the total number of salmon taken in Alaskan waters was 82,741,632, and the value of the pack that year was nearly \$30,000,000. Fishing is Alaska's most important industry.

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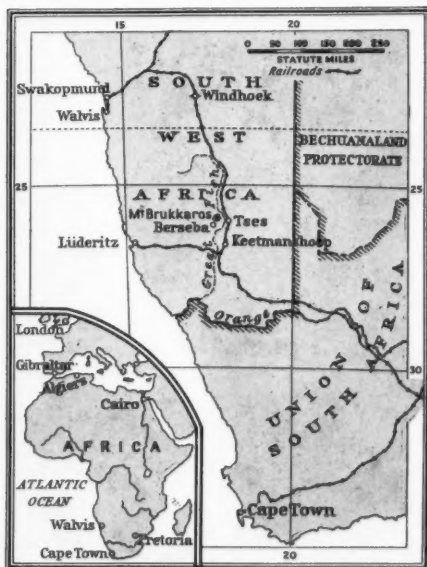
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Longest Flight Lifts Walvis Bay into Headlines



© Drawn by C. E. Riddiford

SOUTH-WEST AFRICA AND WALVIS BAY

AIRPLANE flights are rocketing remote and hitherto little-known places into fame. The latest, Walvis Bay, South-West Africa, came suddenly into the headlines of the world when the English aviators, Gaylord and Nicholletts, brought their plane down there recently after making a new distance record of 5,340 miles.

Man-Made "Oasis" on Arid Coast

Walvis Bay is a man-made "oasis" on the sand-buried southwestern coast of Africa. The landing place is almost under the Tropic of Capricorn, 800 miles north of Cape Town.

The little settlement of Walvis Bay owes its existence to politics, whales, and a spit of sand. For a long time the place was known as "Walvisch" Bay, from the Dutch name for whale, for the bay first came to be known to Europeans as an excellent hunting ground for the huge sea mammals. Recently the Anglicized form, "Walvis," was adopted formally. In 1878 Great Britain, realizing that the

five-mile long sandy peninsula at Walvis afforded the only protected anchorage for hundreds of miles along the desolate coast, annexed the bay and a slice of surrounding territory to serve as "an outpost of Empire."

When Germany took possession of what is now South-West Africa in 1884 Walvis Bay became an enclave in territory of an alien power, and lost for a time all possibility of developing into a port of consequence for the interior. Germany created the port of Swakopmund, 20 miles north of Walvis, and through its roadstead imported and exported all freight.

With the end of the World War and the setting aside of former German South-West Africa as a mandate of the British Union of South Africa, Walvis Bay found a much better place in the sun. An early step was the closing of the artificial harbor of Swakopmund and the routing of all traffic through Walvis.

Connected with Interior by Rail

Since then its rail connections with the interior have become of increasing value and the community has had a slow but steady growth. Wharves with loading cranes have been built and beside them have risen cold storage plants through which pass for export the carcasses of cattle and sheep raised by the Hottentots and other natives of the veldts that lie inland beyond the sand hills. The population of the Walvis Bay settlement is about 2,000, of whom 600 are whites.

Walvis Bay is only an "oasis" in so far as man has made it so. The sand

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The waters and shores of the Black Sea afford a variety of products that, in addition to outstanding commodities, make up the traffic that passes through the Straits. They range from attar of roses, anchovies and butter, caviar, cork, and hides, to licorice root, raisins, salt, and wool.

Open to Every Nation

In the last year before the World War—1913—the tonnage of merchant vessels moving through the Straits amounted to 14,000,000. Two years after the close of the War, in 1920, less than 2,500,000 tons moved through. From that time on growth has been steady. In 1924 the tonnage was more than 7,000,000. In 1930 it passed the pre-war total and exceeded 17,500,000. The 1931 tonnage was 19,198,346.

Following the World War, the Powers insisted that the Straits be in effect internationalized. A 10-mile zone on each side was demilitarized, and it was provided that the waterways should be freely open, night and day, to merchant ships of all nations, and even to ships of war, with slight restrictions. Turkey accepted the arrangement and all other countries touching the Black Sea signed the agreement. A Straits Commission was set up in 1924. It supervises the operation of the agreement and makes an annual report to the League of Nations.

Note: The Bosphorus and the other parts of this historic waterway between Europe and Asia are rich in history and legend. For supplementary reading and pictures see: "Summer Holidays on the Bosphorus," *National Geographic Magazine*, October, 1929; "Turkey Goes to School," January, 1929; "Seeing 3,000 Years of History in Four Hours," December, 1928; "Skirting the Shores of Sunrise," December, 1926; "Constantinople To-day," June, 1922; and "The Gates to the Black Sea," May, 1915.

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THE BOSPORUS, WHERE EUROPE SMILES AT ASIA, AND ASIA SMILES BACK

There are few more beautiful bodies of water than this, the narrow channel that forms part of the waterway between the Black Sea and the Mediterranean. The Bosphorus, "in flow a river and in depth a sea," may be roughly divided into three zones: Palaces, Pictures and Picnics. The scene above, taken from the ancient palace zone in Istanbul (Constantinople), suggests, by its charm, that it might well fall into all three classes.

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The Kazak Republic, Changing Land in Former Turkestan

DEEP in the heart of Central Asia, at Chimkent, the Soviet Union is completing its largest lead smelting plant. This smelter is capable of turning out three times as much lead as all the smelters in the Soviet Union produced in 1931.

Chimkent is one of the many new cities that have come into being in the Kazak Autonomous Socialist Soviet Republic since the Soviet government came into control of vast regions east of the Caspian Sea and the Ural Mountains.

Land of Herders and Minerals

Only the extreme northeast and northwest regions of the Republic support an agricultural industry; the central region is steppe land, grazing more than a million cattle, sheep and goats. A large part of the south is arid desert to which rain and vegetation are almost unknown. Rivers are few in the Republic and water transportation is confined to some of the numerous lakes. Although the mineral resources have been neglected, the mountains are known to have valuable deposits which have yielded copper. Gold, silver and lead also have been found.

The Republic has more than six and a half million inhabitants. Nearly three-fifths are Kazaks; the remainder are immigrants from European Russia and other regions of Central Asia.

Kazaks are sturdy, dark-skinned people with flat, broad noses, high cheek bones and small hands and feet. Most of them have black hair and black eyes, but now and then one meets a tribesman with blue eyes and light hair in whose veins flows the blood of northern blonds. When the Tatar hordes swept Asia and eastern Europe, the Kazaks joined them. Tatar leaders divided the race into three groups, great, middle and small, and these groups remain to this day. Each group is divided into tribes and the tribes into communities. The small groups of from five to fifteen yurts, dotting the Kazak steppes, constitute communities.

Once Villages Were Rare

Before the Russian revolution, villages were as scarce in the Kazak country as oases in the Sahara Desert, for the Kazaks are nomads. The location of their communities depends upon fresh pasture land for their herds of sheep and goats. In the summer they live in the uplands; in the winter they seek the shelter of the valleys. Immigrants have established villages in the Republic, however, and many Kazaks have settled with the newcomers.

Out of touch with schools, about 95 per cent of the Kazaks are illiterate. Their nomadic habits also isolate them from the grocery store and haberdashery shops of the few cities in the Republic, so they depend upon their herds for food and clothing. Sour cheese, butter, sheep and goat meat are staple foods, while wool and sheep and goat hides are utilized for clothing.

It is the man's work in a Kazak community to tend the herds. The remainder of the community labor falls upon the woman. She breaks and makes camp and attends to all domestic affairs. Moving, however, is not a great problem in the Kazak Republic. The yurts are collapsible wooden-lattice frameworks with felt coverings, and the Kazak furniture consists only of a few wooden bowls, home-made rugs and sheepskin bags. In her spare time the housewife weaves gay-colored rugs and shawls and repairs the family yurt.

Kazaks are Mohammedans, but the women wear no veils. Bride-buying is

hills, which are from 30 to 100 feet high near the settlement, rise to 300 and 400 feet three miles inland. Practically the only vegetation consists of a few stunted bushes and a leafless gourd-like vine which grows on the sand hills and helps to keep them in place. The fruit of this vine resembles a custard apple and is an important food for the natives. The region is almost waterless. Some of the water supply is obtained from condensation and some is brought by ships.

Thanks to a northward flowing cold current, which brings abundant fish food, the waters of Walvis Bay and the vicinity teem with fish. Living on the schools of fish are swarms of birds, from gulls to penguins. Seals are also plentiful and a few whales still appear. A generation or so ago great schools of whales frequented the bay and the adjoining coast.

Since Walvis Bay lost its isolated character by the passing of South-West Africa under British control, it is looking to a future as a busy port for a large territory in the interior. Rail communications with Johannesburg are now rather roundabout, but extensions and cut-offs are planned which will place Johannesburg three days nearer to London via Walvis Bay than by the Cape Town route.

Note: For supplementary reading about this little-known corner of the globe see: "Keeping House for the Shepherds of the Sun," *National Geographic Magazine*, April, 1930; "Hunting an Observatory," October, 1926; and "Measuring the Sun's Heat and Forecasting the Weather," January, 1926. Students interested in South Africa should consult "Under the South African Union," April, 1931.

Bulletin No. 4, March 6, 1933.



© Photograph by Austin West

BIRD PENTHOUSES IN TREES

The few trees of arid South-West Africa are nearly always burdened with ungainly nests of the society bird. As many as two hundred birds may occupy one of these hanging apartments.

illegal, but is secretly practiced. A first-class Kazak bride costs thirty or more camels or horses, or from eight to ten times as many goats or sheep.

Two railroads now penetrate the Kazak country—the Orenburg-Tashkent line which has been in operation for many years, and the recently completed line connecting the Central Asian city, Alma Ata (Verni), and other eastern Kazak cities and towns with the Trans-Siberian Railway at Novosibirsk. Camels and horses remain important factors in Kazak transportation.

Note: See also "Surveying Through Khoresm," *National Geographic Magazine*, June, 1932; "The Desert Road to Turkestan," June, 1929; "World's Greatest Overland Explorer," November, 1928; "By Coolie and Caravan across Central Asia," October, 1927; "The Land of Lambskins," July, 1919; and "Russia's Orphan Races," October, 1918.

Bulletin No. 5, March 6, 1933.

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MARCO POLO MENTIONED THE FAT-TAILED SHEEP

This indispensable animal is the principal source of meat, wool and milk throughout the Soviet region that was formerly Turkestan. In this region, too, lies the Karakul Oasis, source of the curly, gray lambskin coats so popular in Europe and America.

